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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,571	04/20/2004	Steven E. Bromberg	340.182A	5270
27019	7590	12/14/2006		
THE CLOROX COMPANY P.O. BOX 24305 OAKLAND, CA 94623-1305			EXAMINER NGUYEN, NGOC YEN M	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/828,571

Applicant(s)

BROMBERG ET AL.

Examiner

Ngoc-Yen M. Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Newly submitted claims 20-21 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the product of claims 20-21 can be produced directly with the required concentration without the diluting step.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 20-21 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kojima (5,447,969).

Kojima '969 discloses a solution obtained by diluting sodium hypochlorite solution with ion-exchanged water to have an available chlorine concentration of 3 ppm, and

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adjusting the pH to 7 with a buffer solution of citric acid and sodium hydrogen phosphonate (note column 6, lines 31-37).

The process for obtaining a dilute hypochlorite as disclosed in Kojima '969 anticipates the claimed process.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima '969).

Kojima '969 discloses a process for obtaining a dilute hypochlorite solution as mentioned in the above rejection.

The pH of 7 as disclosed in Kojima '969 is well within the claimed ranges in the instant claims 4-7, 8. For the instant claim 7, since the claimed range of "less than pH 7" can be 6.99, which is so close to the disclosed value of 7 in Kojima '969, no patentable difference is seen.

Since deionized water is used in Kojima '969 to form the dilute acid, the metal impurities level in the dilute hypochlorite solution in Kojima '969 would inherently be low as required in the instant claim 19.

For other methods for purify the water used to dilute the hypochlorite solution, beside the ion-exchanging method disclosed in Kojima '969, or the other compounds to adjust the pH for the dilute hypochlorite solution, it would have been obvious to one skilled in the art to use any known available means or compounds as long as a dilute hypochlorite solution with the desired pH as disclosed in Kojima '969 can be obtained.

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Kojima '969 does not specifically disclose the concentration of the starting hypochlorite solution. However, it would have been obvious to one skilled in the art to use any commercial available hypochlorite solution as long as it can be diluted down to give the desired level for the available chlorine for the process of Kojima '969.

Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uemura et al (5,051,178) in view of Kojima '969.

Uemura '178 discloses an aqueous solution with a pH of 7 containing 600 ppm of sodium hypochlorite and 0.2 weight% of potassium phosphate (note column 7, lines 26-28).

The difference is Uemura '178 does not specifically disclose the step of diluting a more concentrated sodium hypochlorite solution to get the solution containing 600 ppm of sodium hypochlorite.

Kojima '969 is applied as stated above to teach that it is conventional in the art to dilute a more concentrated sodium hypochlorite solution with ion-exchanged water to obtain a more dilute sodium hypochlorite.

Applicant's arguments filed September 26, 2006 have been fully considered but they are not persuasive.

Applicants argue that claim 1 contains the limitation "stable" dilute composition.

It should be noted that since Kojima '969 teaches all the positive steps as required in Applicants' claim 1, the solution obtained in Kojima '969 would inherently be as "stable" as the product of the claimed process.

Applicants argue that the 132 Declaration and the accompanying published article show that the method of Kojima does not produce a stable dilute composition.

The Declaration and the article have been fully considered, however, as stated in the article, the hypochlorite solution has high concentration, i.e. 5.25% or 52,500 ppm as compared to 3 ppm in Kojima; the buffered solution used is sodium phosphate, as compared to sodium hydrogen phosphate in Kojima; it is unclear if the reaction between citric acid and sodium hypochlorite would occur if there is no excess hypochlorite.

Applicants further argue that Table II shows that different methods of purification have different levels of impurity, TOC.

Granted that it is true, however, when water, purified by any method, is used to form the dilute hypochlorite, the stability of the resulting solution is still within the required "retain at least 90% of the available chlorine concentration at a storage of 70°F over 27 days", no patentable difference is seen.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

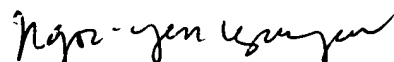
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 or (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.

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Ngoc-Yen M. Nguyen  
Primary Examiner  
Art Unit 1754

nmn

December 11, 2006